

In the Claims

Claims 1-6(Cancelled).

7(Currently Amended). A system for generating a transform, comprising:

a first transform lookup table;

a second transform lookup table;~~and~~

a transform exclusive OR array connected to an output of the first transform lookup table and an output of the second transform lookup table

a first data exclusive OR array connected to a first data portion of the input data and connected to a first transform portion of an output of the transform exclusive OR array and an output forming a pointer to the first transform table, wherein a number of bits in the first data portion is equal to a number of bits in the first transform portion;

a second data exclusive OR array connected to a second data portion of the input data and connected to a second transform portion of the output of the transform exclusive OR array and an output forming a pointer to the second transform table, wherein a number of bits in the second data portion is equal to the number of bits in the first data portion;

a third transform lookup table connected to the transform exclusive OR array;
and

a third data exclusive OR array connected to a third data portion of the input data and connected to a third transform portion of the output of the transform exclusive OR array and an output forming a pointer to the third transform table.

Claims 8-13(Cancelled).

14(Currently Amended). A system for generating a transform comprising:

a first lookup table connected to a new portion of a data string;

an exclusive OR array having an input connected to an output of the first lookup table wherein the exclusive OR array is a three term exclusive OR array; and

a second lookup table connected to a discarded portion of the data string.

15(Original). The system of claim 14, wherein the new portion and the discarded portion have the same length.

16(Cancelled).

17(Original). The system of claim 14, further including a data exclusive OR having an output connected to an input of the first lookup table and a first input connected the new portion of the data string and a second input connected to a portion of a present transform.

18(Original). The system of claim 14, further including a shift register connected between a data input stream and the second lookup table.

19(Original). The system of claim 14, further including an output register connected to the output of the exclusive OR array.

20(Original). The system of claim 19, wherein a content of the output register is shifted by a predetermined number of bits and then input into the exclusive OR array.

21(Original). The system of claim 14, wherein the first lookup table is a plurality of tables.

22(Original). The system of claim 21, wherein the second lookup table is a plurality of tables.